

Claims

1. Proxy device which
 - a) receives a service request from a client,
 - b) Subsequently performs an authentication and notifies the
5 client after a successful authentication of a reference to
an application server for execution of the service
requested,
 - c) Receives from the application server created billing
tickets, with the tickets containing information relating to
10 the charges arising before or during the use of the service,
 - d) Directs an acknowledgement request to the client in each
case in respect of a ticket received,
 - e) Performs a charge registration action for the ticket if the
client acknowledges the ticket.
- 15 2. Proxy device in accordance with claim 1
characterized in that
said charge registration action consists of the proxy device
updating the credit status or charge status of the client.
- 20 3. Proxy device in accordance with claim 1
characterized in that
said charge registration action consists of storing the ticket
for subsequent billing.
4. Proxy device in accordance with one of the claims 1 to 3,
characterized in that
25 it notifies the client of the charges included for the charge
registration action.
5. Application server which
 - a) Receives from a client a service request, with the service
request containing a reference to a proxy device,
 - 30 b) Creates billing tickets in respect of the service and sends

these to the proxy device if it accepts the service request, with the tickets containing information about the charges falling due for the client before or during the execution of the service,

- 5 c) Receives messages from the proxy device about whether the tickets are acknowledged by the client,
d) maintains the execution of the service for as long as the tickets are positively acknowledged by the client.

6. Application server in accordance with claim 5,
10 characterized in that
it ends the service relationship to the client if it is notified by the proxy device that the client has returned a negative acknowledgement for an acknowledgement request in respect of a ticket.

15 7. Application server in accordance with claim 5,
characterized in that
it ends the service relationship to the client if it is notified by the proxy device that the client has not acknowledged an acknowledgement request or a number of
20 acknowledgement requests in respect of a ticket.

8. Application server in accordance with claim 5,
characterized in that
the ends the service relationship to the client if it has not received any acknowledgement at all from the proxy device to
25 the ticket which it has generated.

9. Application server in accordance with claim 5,
characterized in that
it ends the service relationship to the client if it receives from the proxy device in the case of a pre-paid user the
30 notification in respect of the ticket that sufficient credit is no longer available.

10. Client which

- a) Makes a service request to a proxy device,
- b) After a successful authentication of the service request by the proxy device receives a reference to the requested service,
- c) On the basis of said reference sets up a service relationship to an application server of the requested service,
- d) Receives from the proxy device acknowledgement requests in respect of the charges falling due for the service,
- e) Verifies and answers the said acknowledgement requests from the proxy device.

11. Client in accordance with claim 10,
characterized in that

- it accumulates the billing messages transferred to it from the proxy device with the aid of the acknowledgement requests and displays these charges to the end user for billing monitoring in real time.

12. Client in accordance with claim 10 or 11,
characterized in that

it allows the end user to respond manually to a billing message.

13. Method for charging for a service in a communication network, in accordance with which

- f) A service request is made by a client to a proxy device,
- g) Subsequently, with the aid of the proxy device, an authentication is performed, in which case the client is notified by the proxy device after a successful authentication of a service reference to the requested service,
- h) A service relationship to an application server of the

requested service is established by the client on the basis of said service reference,

- i) A reference to the proxy device is communicated by the client to the application server,
- 5 j) Tickets are created by the application server and sent to the proxy device, in which case the tickets contain information in respect of the charges falling due before or during the use of the service,
- k) An acknowledgement request is directed to the client by the proxy device in respect of a ticket,
- 10 l) If the ticket is acknowledged, the ticket is included by the proxy device in a charge registration action.

14. Method in accordance with claim 13,
characterized

15 in that

- a) The result of the acknowledgement request from the proxy device is forwarded to the application server,
- b) The execution of the service on the application server side is maintained as long as the tickets are positively
- 20 acknowledged by the client.